

**ROCKY FLATS ENVIRONMENTAL  
TECHNOLOGY SITE  
Final OU2 Subsurface IM/IRA  
Implementation and Operation Plan  
Soil Vapor Extraction Pilot Test**

**Manual No.:  
Section No.  
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Organization:**

**RFETS/ER-WP-OU 2.5  
Table of Contents,R3  
1 of 1  
09/15/94  
Environmental Management**

**TABLE OF CONTENTS  
ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE  
Final OU 2 Subsurface IM/IRA Implementation and Operation Plan  
Soil Vapor Extraction Pilot Test**

<b>Section No.</b>	<b>Title</b>	<b>Rev. No.</b>	<b>Effective Date</b>
	Detailed Table of Contents	2	08/19/94
1.0	Background	2	08/19/94
2.0	Pilot Test Design and Installation	2	08/19/94
3.0	Pilot Test Plan	2	08/19/94
4.0	Project Management Plan	2	08/19/94
5.0	Cost Estimate	2	08/19/94
6.0	References	2	08/19/94
LT	List of Tables	2	08/19/94
LF	List of Figures	2	08/19/94
LD	List of Drawings	2	08/19/94
APPX	Appendices	2	08/19/94
•94-DMR-ERM-0106	Appendix D Measurement Frequency and HC Sample Totals	2	09/15/94

## Page 1 of 1

1. Date  
8/18/94

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2. Existing Document Number/Revision  
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William Fronczak/796-4611/NA/WCFS Denver

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8. Item	9. Page	10. Step
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## 11. Proposed Modifications

1.	D-16	<ul style="list-style-type: none"> <li>a. Change measurement frequency to (1/4 hours) on all parameters except HC.</li> <li>b. Change HC measurment frequency to (1/8 hours).</li> <li>c. Add HC sample to be taken at Deep APM Probe and Shallow APM Probe.</li> </ul>
2.	D-17	<ul style="list-style-type: none"> <li>a. Change measurement frequency to (1/4 hours) on all parameters.</li> </ul>
3.	D-18	<ul style="list-style-type: none"> <li>a. Change measurement frequency to (1/4 hours) on all parameters.</li> </ul>

12. Justification (Reason for Modification, EJO#, TP#, etc.)

Measurement frequencies and HC sample totals were changed to reflect previous pilot tests.

If modification is for a new procedure or a revision, list concurring disciplines in Block 13, and enter N/A in Blocks 14 and 15. If modification is for any type of change or a cancellation, organizations are listed in Block 13, then Concuror prints, and signs in Block 14, and dates in Block 15.

### 13. Organization

14. Print and Sign (if applicable)

15. Date (if applicable)

EQS S. Luker *[Signature]*

8.30.94

DC L. Tyler *[Signature]*

8/29/94

EOS ~~M.C. Broussard~~ *Duep*

EOS M. Burmeister *Dues*

OU2 ~~W. Busby~~ *Bluff*

OU2 M. Kowalewski

8/30/94

16. Originator's Supervisor (print/sign/date)  
G.R. Konwinski *G.R. Konwinski* 8-30-94

17. Assigned SME/Phone/Page/Location  
Dennis Pontius/8616/080

### 18. Cost Center

19. Charge Number

20. Requested  
Completion Date

21. Effective Date: 07/15/94

22. Accelerated Review?  
Yes • (No •)

23. ORC Review NOT REQUIRED

24. Responsible Manager (print, sign, date) Dr. W Pontius *W Pontius* 8-25-94  
Dennis Pontius

REVIEWED FOR CLASSIFICATION/U  
BY NA  
DATE NA

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 FILED BY: HONOLULU, CONSTRUCTION OFFICE  
 10/11/1991

PILOT TEST NO. 12 - SCHEDULE OF MEASUREMENTS

PILOT TEST NO. 12 - SCHEDULE OF MEASUREMENTS

	Measurement/Frequency						
	P	Q	T	RH	Rad	OVA	HC
	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(8-hours)
<b>Location</b>							
APM 17 D	X						
APM 18,23 D/S	X						
APM 19,24 D/S	X						
APM 20,25 D/S	X						
APM 21,22 D/S	X						
APM 26 D	X						
APM 27 D	X						
APM14	X						
APM16	X						
Dilution Air Line	X	X	X	X			
Vapor Manifold	X		X	X			
B-300 Out	X		X	X		X	X
GAC-1 Out (D-400)	X					X	X
GAC-2 Out (D-410)	X					X	X
Stack	X	X	X		X	X	

- APM probe flow rate will be monitored continuously with an in line flowmeter.
- Minimum Duration - 8 hours.
- Total number of gas samples in SUMMA canisters - 5
- An air sample will be taken from the shallow APM probe and deep APM probe chosen as the extraction well.

P = Pressure

Q = Flow rate

T = Temperature

RH = Relative humidity

Rad = Verify that SAAM is operational

OVA = Organic vapor reading

HC = Hydrocarbon sample

D = Deep APM probe in trench

S = Shallow APM probe in trench

14-BME-ERM-0106

# PILOT TEST NO. 13 - SCHEDULE OF MEASUREMENTS

	Measurement/Frequency						
	P	Q	T	RH	Rad	OVA	HC
	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)
<u>Location</u>							
Shallow APM chosen in 12	X	X				X	X
APM 17 D	X						
APM 18,23 D/S	X						
APM 19,24 D/S	X						
APM 20,25 D/S	X						
APM 21,22 D/S	X						
APM 26 D	X						
APM 27 D	X						
APM 14	X						
APM 16	X						
Dilution Air Line	X	X	X	X			
Vapor Manifold	X		X	X			
B-300 Out	X		X	X		X	
GAC-1 Out (D-400)	X					X	
GAC-2 Out (D-410)	X					X	
Stack	X	X	X		X	X	

- APM probe flow rate will be monitored constantly with an in line mass flowmeter.
- Minimum Duration - 8 hours or steady state is achieved.
- Total number of gas samples in SUMMA canisters - 2 (from extracted vapor line)
- Sample analysis turnaround time - 48 hours.

P = Pressure

Q = Flow rate

T = Temperature

RH = Relative humidity

Rad = Verify that SAAM is operational

OVA = Organic vapor reading

HC = Hydrocarbon sample

D = Deep APM probe in trench

S = Shallow APM probe in trench

14-DMR-ERW-DIC

# PILOT TEST NO. 14 - SCHEDULE OF MEASUREMENTS

	Measurement/Frequency						
	P	Q	T	RH	Rad	OVA	HC
	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)	1/(4-hours)
<b>Location</b>							
Deep APM chosen in 12	X	X				X	X
APM 17 D	X						
APM 18,23 D/S	X						
APM 19,24 D/S	X						
APM 20,25 D/S	X						
APM 21,22 D/S	X						
APM 26 D							
APM 27 D	X						
APM 14	X						
APM 16							
Dilution Air Line	X	X	X	X			
Vapor Manifold	X		X	X			
B-300 Out	X		X	X		X	X
GAC-1 Out (D-400)	X					X	X
GAC-2 Out (D-410)	X					X	X
Stack	X	X	X		X	X	

- APM probe flow rate will be monitored constantly with an in line mass flowmeter.
- Minimum Duration - 8 hours or steady state.
- Total number of gas samples in SUMMA canisters -2 (from extracted vapor line)
- Sample analysis turnaround time-48 hours

P = Pressure

Q = Flow rate

T = Temperature

RH = Relative humidity

Rad = Verify that SAAM is operational

OVA = Organic vapor reading

HC = Hydrocarbon sample

D = Deep APM probe in trench

S = Shallow APM probe in trench